

CONSTRUCTION NOTES

ROOF

Roofing tiles to match existing to be fixed to 38 x 25mm treated battens at correct gauge. Battens to be fixed through kingspan 'nilvent1 breathable sarking membrane into 38 x 150mm rafters at 400mm ctrs or 202mm deep posi-joists (rafters) with a timber flange of 72 x 47mm (see section A-A & SE details). Rafters to be fixed to 75 x 100mm wall plate at eaves level. Wall plate to be screw fixed and strapped down to wall using galvanised mild steel straps 30 x 5 x 1200mm long at 1.0m centres. Latrural restraint to be provided by galvanised mild steel straps 30 x 5 x 1200mm long turned down cavity face of inner leaf and fixed to 75 x 50mm softwood blocking fixed between roof trusses for full length of straps. Ceiling to be 12.5 vapour check plasterboard with 3mm plaster skim finish. Lay between rafters **150mm of kingspan TP10 insulation**, and **50mm TP10** under rafters. Roof ventilation achieved through kingspan nilvent breathable sarking membrane. All to achieve a minimum **u-value of 0.15W/m²K** on the sloping part of the roof's. At ceiling level, lay 300mm mineral wool (Rockwood) insulation between and across ceiling joists to give **u-value of 0.16W/m²K**.

PARTITION BETWEEN ROOM AND ROOF VOID

Infill studs with 100mm TP10 Kingspan insulation with 35mm TP10 to inside **to achieve U-value of 0.18W/m²K**.

DORMER

Walls- Front wall to be built up of wall plate fixed to new steel beam designed by Structural Engineer. Side walls to be built up off double rafters fixed together.

Walls to be framed out in minimum 100 x 75mm softwood studding at 400mm centres to form front and side walls. Clad externally with bonded 16mm exterior quality WBP plywood, faced with permeable breater membrane and fix treated 38 x 20mm softwood vertical vertical battens at 400mm centres, fix 38 x 25mm treated counter battens to suit gauge, and clad dormers externally with slate to match roofing tiles. Include for all code 5 lead upstands and raking flashings and soakers to leave construction watertight, clad walls and ceilings with 12.5mm vapour check plasterboard with 3mm skim finish, to achieve a **U-Value of 0.18W/m² K**.

Roof- Fix 18mm external quality plywood sarking board to flat roof joists at 400 centres. Built up felt roof to be at a minimum 1:40 pitch. Felt to be supplied by Anderson roofing or similar approved manufacturer, and to be laid in strict accordance with manufacturers instructions.

Lay first layer of bitumen boned 'Anderson' roofing felt or similar approved onto plywood deck. Lay the second layer of felt and repeat the bitumen bonding process taking care not to damage the first layer. Allow for the use of sufficient bitumen, break joints and correct minimum laps. Flat roof joists to be fixed to wall plate supported on new steel beam designed by Structural Engineer. Allow for **150mm of kingspan TP10 insulation** fixed between flat roof joists, and **50cm TP10 under joists** (cold roof), 50mm air gap / vent over insulation. Finish below skim. Finished roof to achieve a minimum **U-Value of 0.18W/m²K**.

Include for all code 4 lead upstands and raking flashings and soaker's to ensure construction is watertight.

DORMER FLAT ROOF: insert similarly 150mm of Kingspan TP10 insulation between joists and 50mm TP10 under joists. Ventilation to be equivalent to a 25mm continuous gap at the eaves and a 5mm continuous gap at the ridge.

DORMER CHEEKS WITHIN 1 METER OF BOUNDARY should be 12mm Superlux boards or similar approved fixed with M4 woodscrews at 300mm centres.

INTERNAL PARTITIONS

To be framed up in 75 x 50mm softwood studs at 400mm centres vertical with noggings at 450mm centres horizontally clad both sides with 12.5mm plaster board with a 5mm plaster skim finish throughout. Internal partitions are to be acoustically upgraded by adding to the above construction a layer of 25mm Isowool acoustic partition roll (1200) in cavity studwork, tightly fitted between studs, all air gaps to be sealed with acoustic sealant to achieve a minimum Rw value of 40db.

PARTY WALL

Party wall between room and unheated space (adjoining loft) to have 65mm TP10 Kingspan insulation fixe on 35mm, on wall. Fix 12.5mm vapour proof plasterboard on TP10, joints tapped and skim finished. Wall to give U-Value of 0.18W/m²K.

STAIRCASE (FIRSTLOFT)

Fit new timber staircase with equal risers to suit overall floor height and goings of 225mm (see proposed plans and sections). Provide handrail at 900mm above flight. A minimum of 2000mm headroom is to be provided for full length of flight. Maximum pitch no more than 42 degrees. Entire staircase construction and design is to comply with BS 585 & BS 5395: part 1 and approved document K of the building regulations. Allow for under drawing flight with 12.5mm plasterboard to give 1/2 hour fire protection.

PROTECTED STAIRWAY

All doors to protected stairways except bathrooms to be F30 fire resistant with self closing devices. Fire (smoke) alarm to be provided in the protected stairways at all storeys. **See drawings for FD30 doors**. The whole enclosure to give 30min fire resistance.

EXISTING FIRST FLOOR CONSTRUCTION OVER THE WHOLE OF THE GROUND FLOOR ROOMS

To be minimum standard of modified hour fire resistance: tack 12.5mm Gyproc fireline to all existing ceiling to achieve half hour fire resistance to comply with Approved Document B3, clause 4.7.

NEW SECOND FLOOR CONSTRUCTION

To have 22mm floor decking (mass 10kg/m²) extending to the eaves, 100mm mineral wool in the floor void secured with chicken wire stapled to the joists and 12.5 Gyproc fireline ceiling. Add additional 150mm mineral wool in the roof void over the boarding. All to satisfy Approved Document B (fire spread), Approved Document E (sound insulation) and Approved Document L1 (thermal insulation).

FIRE PROTECTION TO STEEL BEAMS: encase steel beams with 2 layers of 12.5mm plasterboard or similar treatment to give 1/2 hr fire resistance.

ELECTRICAL INSTALLATION

Contractor is to include for extending and modifying the existing electrical installation to suit the client's requirements.

Provide a minimum of at least three internal lighting points having a luminous efficacy greater than 45 lumens per circuit-watt; these fittings will be required and should be only capable of taking these high efficacy lights. High efficiency lights should be positioned where expected to have most use. All electrical work to be carried out by a competent person who can test and certify the installation, on a self certifying basis, and relevant certificates along with a "Part P- Electrical Safety in Dwellings" application form to be submitted to the Local Authority for satisfaction, prior to commencement of work.

JOINERY

Include for architraves and skirting to match existing.

DRAINAGE

New pipes and fittings as existing drainage, 100mm diameter, all laid in strict accordance with manufacturer's instructions. All drains passing through walls are to be above foundation level with concrete linlets over them and flexible joints both sides. Any drains passing under building are to be bedded and surrounded as recommended by manufacturer. Any drains found to be no longer in use are to be taken up or filled with concrete to the satisfaction of the local authority.

WASTE SYSTEM

New 100mm soil pipe to be connected to the existing system. New bath and basin to be fitted with 75mm deep seal anti-vac traps. W/C wastes to be 100mm dia, bath 38mm dia and basin 32mm dia. Wastes are to be connected separately into new s.v.p but not within 200mm of a WC connection.

SVP to be extended to at least 900mm above any opening within 3 meters.

SANITARY FITTINGS

All new sanitary fittings to be provided by client and fixed by contractor.

PAINTING, DECORATING AND FINISHES

All painting, decorating and finishes to be agreed with client.

RAINWATER GOODS

Rainwater gutter and pipe to be as existing and to be connected into existing surface water system.

HEATING AND VENTILATION

Provide and fit new adequately sized radiators with thermostatic radiator valves in extension, positions to be agreed with client. Existing boiler to be checked for adequate capacity and replace if necessary. If new boiler is to be installed it would need to be a gas condensing central heating and hot water boiler either Type A or Type B with an energy efficiency in accordance with approved document L1 of the building regulations, the gas boiler is to have a SEDBUK min efficiency rating of 86%, all hot water pipework and storage is to be fully insulated to prevent heat loss from the installation.

AUTOMATIC SMOKE DETECTION AND ALARMS

Provide self contained mains operated smoke detectors with battery back-up to conform to BS5446: part 1 installed in accordance with manufacturers instructions and Building Regulations approved document B1 section 1 and 2. Alarms to be permanently wired on a separate fused circuit in accordance with IEE wiring regulations. Operating and maintenance instructions are to be provided for the occupier in accordance with BS5839: part 1. Refer to plan for location of smoke alarms denoted by SD.

NEW WINDOWS

New upvc window to have an unobstructed operable area for escape purposes of minimum 450mm high x 450mm wide and at least 0.33 square meters. The bottom of the operable area should be no more than 1100mm above the floor level. Windows are to provide minimum opening lights equal to 1/20 (5%) of the floor area of the room served and to provide minimum background ventilation via controlled trickle ventilators to achieve 4000mm² in the Kitchen and 8000mm² to all other habitable rooms.

The windows are to be glazed with 2mm (4:16:4) sealed double glazed (Low -E-emissivity of 0.15) units with a **minimum 'U' value of 1.4W/m² K, or centre pane U value of 1.2 W/m² K** or energy rating band D.

All glass shall be in accordance with BS 6262:1978. Obscure glazing is to be provided to bathrooms.

Allow for 15mm of GypWall Fire Line board to dormer cheek and ceiling within 1 meter of boundary. All to be in accordance with Part B. Allow for plaster skim and making good to all finishes.

Fire stop existing wall to underside of roof with rockwool or similar non combustible material. All to be in accordance with Part B. Make good to finishes.

Underside of new staircase to be lined with 12.5mm fire line board with 5mm skim finish. Making good to all finishes.

Allow for new steel beam to support flat roof joists of dormer, and new rafters of main roof.

STRUCTURAL CALCULATIONS

Refer to the Structural design and details provided by the Structural Engineer.
Details of posts supporting ridge beam including beam / post and post / beam (wall) connections, see SE details enclosed.

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drawing title :
Proposed Notes

drawn: SN	chkd : SS	date:24.01.2023
status: Permitt Develop.		
proj no : 2324		scale: NTS@A3
drg no: 04		rev no: